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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/559,159

04/19/2006

Peter Kaever

10034.541

9054

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10/30/2008

EXAMINER

SANDERSON, JOSEPH W

ART UNIT

PAPER NUMBER

3644

MAIL DATE

DELIVERY MODE

10/30/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/559,159	Applicant(s) KAEVER ET AL.	
	Examiner Joseph W. Sanderson	Art Unit 3644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 December 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. The drawings are objected to because Fig 2 should be clarified for readability, and its words translated. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the discontinuity in the pressure

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curve must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

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The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

5. The abstract of the disclosure is objected to because it includes implicit language (e.g. "it is proposed"). Correction is required. See MPEP § 608.01(b).

6. The specification appears to be a literal translation into English from a foreign document and is replete with grammatical and idiomatic errors (for example, but not limited to, page 4, lines 16-18, "This option allows to adjust the pressure drop and rise in the pulse chamber to be fast....").

7. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

“the linear infolding pressure” of claim 9;

the “discontinuously variable” valve opening cross-section of claim 24.

8. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

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Claim Objections

9. Claims 6, 17, 18, 31 and 34 are objected to because of the following informalities:

Claims 6, 17 and 34, the phrase “and/or” should be the legal phrase --at least one of-- or an equivalent;

Claim 18, line 3, a hyphen (-) should be between “pressure” and “time;”

Claim 31, line 1, “said two valve openings” should be --said at least two valve openings--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. Claim 17 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a input signal from a pressure measuring unit, does not reasonably provide enablement for an input signal from any other component. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims.

The full scope of the claimed invention must be enabled. See Auto. Techs. Int’l, Inc. v. BMW of N. Am., Inc., 501 F.3d 1274, 1285 (Fed. Cir. 2007). The

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rationale for this statutory requirement is straightforward. Enabling the full scope of each claim is “part of the quid pro quo of the patent bargain.” AK Steel, 344 F.3d at 1244. A patentee who chooses broad claim language must make sure the broad claims are fully enabled. “The scope of the claims must be less than or equal to the scope of the enablement” to “ensure[] that the public knowledge is enriched by the patent specification to a degree at least commensurate with the scope of the claims.” Nat’l Recovery Techs., Inc. v. Magnetic Separation Sys., Inc., 166 F.3d 1190, 1195-96 (Fed. Cir. 1999).

Sitrick v. DreamWorks and Warner Brothers (CAFC 2007-1174).

The disclosure indicates the device could with any component input, however the disclosure does not provide how one of ordinary skill would include the signal from any of a range of other components without undue experimentation. For example, it is unclear and unknown how one of ordinary skill would use a signal from a bell or cell-phone and operate it properly to achieve similar results as with the embodiment of the pressure measuring device.

13. Claims 6-10, 12-18, 24 and 33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on

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notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term “discontinuous” in claims 6 and 24 is used by the claim to mean “a change in the function defining the curve”, while the accepted meaning is “a non-continuous function curve” (i.e. a curve that cannot be drawn without lifting pen from paper). The term is indefinite because the specification does not clearly redefine the term.

Claims 7 and 8, the use of the term“(substantially)” renders the claims indefinite as it is unclear if the phrase within the parenthesis is part of the limitations of claims.

Claim 9 recites the limitation "the first and the second stage" in line 2. There is insufficient antecedent basis for these limitations in the claim.

Claim 9 recites the limitation "the region of the linear infolding pressure" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 10 recites the limitation "the pulsator" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 12 recites the limitation "the pulsator" in line 2. There is insufficient antecedent basis for this limitation in the claim.

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Claim 13 recites the limitation "the pulsator" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 13 cites the cross-section of the valve changed in multiple stages, however it is unclear if this refers to a process of use or assembly (e.g. replacement steps).

Claim 14 recites the limitation "the pulsator" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claims 15 and 16 recite "at least one stage of a pressure changing phase," however it is unclear if this is the same as the pressure changing phase of claim 1 or an additional phase.

Claim 17 recites the limitation "the pulsator" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 17 recites the limitation "the flow regulator" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Regarding claim 18, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

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Regarding claim 18, the word "means" stands alone in an attempt to use a "means" clause to recite a claim element as a means for performing a specified function. However, since no function is specified, it is impossible to determine the equivalents of the element, as required by 35 U.S.C. 112, sixth paragraph. See *Ex parte Klumb*, 159 USPQ 694 (Bd. App. 1967).

Claim 24 recites the limitation "the opening cross-section" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 32 recites the limitation "the device" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 33 recites the limitation "the at least one valve opening" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim.

Claim 34 recites the limitation "said component" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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15. Claims 1-5, 7-12, 14, 17-19, 21-23, 26, 28-30, 33 and 34 are rejected under 35 U.S.C. 102(b) as being anticipated by Grimm et al. (US 5 970 910).

Regarding independent claims 1 and 18:

Grimm discloses a pulsator (11) generating a pulsed vacuum in a pulse chamber of a teat cup (2) by altering the vacuum in the chamber during pressure changing phases, characterized in that the pressure curve is controlled at least for a duration of one pressure changing phase in at least two speed rates (the graph in Fig 9 indicates that there is a variation in at least phases a and c by the variation of the pressure gradient).

Regarding claims 2-4:

The discussion above regarding claim 1 is relied upon.

Grimm discloses the pressure curve being controlled during the change phases by an adjustable unit (adjustable throttle 26; col 7, lines 32-33 and 53-55).

Regarding claim 5:

The discussion above regarding claim 1 is relied upon.

Grimm discloses the speed of pressure changes within a time stage as continuous (indicated by the continuous curve in Fig 9).

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Regarding claim 7:

The discussion above regarding claim 1 is relied upon.

Grimm discloses the curve of the first stage of the ventilation phase as flatter than a subsequent stage (the beginning of c is flat, then steeply declines).

Regarding claim 8:

The discussion above regarding claim 1 is relied upon.

Grimm discloses the curve in the first stage of the evacuation phase as steeper than in a subsequent stage (the curve levels off as it approaches b).

Regarding claim 9:

The discussion above regarding claim 1 is relied upon.

Grimm discloses the shift from a first stage to a second stage occurring in a region of the linear infolding pressure (b and d are linear).

Regarding claims 10, 12, 23, 26 and 29:

The discussion above regarding claims 1 and 18 is relied upon.

Grimm discloses the curve of the changing phases adjusted according to a characteristic of a valve (adjustable throttle 26) of the pulsator, the valve opening cross-section variably changing.

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Regarding claim 11:

The discussion above regarding claim 1 is relied upon.

Grimm discloses the free-flow resistance varied toward the teat cup (due to 26).

Regarding claim 14:

The discussion above regarding claim 1 is relied upon.

Grimm discloses the valve cross-section changed continuously (as evidenced by the pressure curve).

Regarding claim 17:

The discussion above regarding claim 1 is relied upon.

Grimm discloses the pressure measured in the pulsation chamber (col 6, lines 12-16) forming an input signal of a component (17) which supplies an output signal through which the other components are controlled (via 18).

Regarding claims 19, 21 and 22:

The discussion above regarding claim 18 is relied upon.

Grimm discloses a control device (18) that is suitable for controlling the pressure curve during the changing phases.

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Regarding claim 28:

The discussion above regarding claim 18 is relied upon.

Grimm discloses at least one direct valve (28).

Regarding claim 30:

The discussion above regarding claim 29 is relied upon.

Grimm discloses at least two valve openings (those for 26 and 28).

Regarding claim 33:

The discussion above regarding claim 18 is relied upon.

Grimm discloses a valve closing element provided that interacts with the at least one valve opening (adjustable valves inherently have some means to alter the size of the opening, and no-return valves having closure means to prevent backflow through the opening).

Regarding independent claim 34:

Grimm discloses a milking device comprising at least one teat cup and an associated pulsator according to claim 18, and a pressure measuring unit (17) supplying an input signal for a device (18) which is used to activate the pulsator.

16. Claims 1, 6, 12, 13, 18, 20 and 23-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Innings et al. (US 6 009 832).

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Regarding independent claims 1 and 18:

Innings discloses a pulsator (16) generating a pulsed vacuum in a pulse chamber of a teat cup (3) by altering the vacuum in the chamber during pressure changing phases, characterized in that the pressure curve is controlled at least for a duration of one pressure changing phase in at least two speed rates (the graphs in Figs 2 and 3 indicate that there is a variation in at least phases a and c by the variation of the pressure gradient).

Regarding claim 6:

The discussion above regarding claim 1 is relied upon.

As best understood, Innings discloses the evacuation and ventilation phases as discontinuous (the function defining the curves change within the two phases).

Regarding claims 12, 13 and 23-25:

The discussion above regarding claims 1 and 18 is relied upon.

As best understood, Innings discloses a valve (28) changed in multiple stages (the valve creates the multi-staged curve of Figs 2 and 3), and thus the opening cross-section is discontinuously variable.

Regarding claim 20:

The discussion above regarding claim 18 is relied upon.

Innings discloses at least one timing element (23, 24; col 7, line 66 – col 8, line 5) through which the duration of a stage can be adjusted.

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Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grimm ('910) in view of Kaneko (US 5 897 304).

The discussion above regarding claim 12 is relied upon.

Grimm discloses a pulsator valve, but does not disclose the valve maintained in a floating position during at least one stage of a pressure changing phase.

Kaneko discloses a pulsator valve (96) that is maintained in a floating position during an evacuation phase (col 6, lines 4-14) as an alternative to a variety of other equivalent valves (col 6, lines 17-21).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Grimm to use a floating valve as taught by Kaneko as this is a well-known functionally equivalent means for predictably regulating the pressure flow.

Grimm as modified would render the floating position as variable (capable of being varied), as varying forces acting upon the valve would affect the position differently.

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19. Claims 27 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grimm ('910) in view of Krone (US 5 628 491).

Regarding claim 27:

The discussion above regarding claim 18 is relied upon.

Grimm discloses a pulsator main valve, but does not disclose a pilot valve.

Krone teaches a pilot valve for controlling a main pulsator valve (abstract).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Grimm to use the pilot valve/main valve combination as taught by Krone for the well-known predictable advantage of controlling the main valve to provide easy control of high pressure/flow lines.

Regarding claim 32:

The discussion above regarding claim 18 is relied upon.

Grimm discloses a milking device, but does not disclose the device having a diaphragm or nozzle.

Krone teaches a milking device having a diaphragm (4) to create seals for the vacuum (col 2, lines 43-47).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Grimm to use a diaphragm as taught by Krone for the well-known predictable advantage of providing seals for the vacuum.

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20. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Grimm ('910).

The discussion above regarding claim 30 is relied upon.

Grimm discloses at least two valves, but does not specifically disclose the valves having different cross-sections.

It would have been an obvious matter of design choice to use, since applicant has not disclosed that having different cross-sections solves any stated problem or is for any particular purpose and it appears that the invention would perform equally as well with the valves as supplied by Grimm.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph W. Sanderson whose telephone number is (571)272-0474. The examiner can normally be reached on M-F 7:00 am - 2:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael R. Mansen can be reached on (571)272-6608. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael R Mansen/
Supervisory Patent Examiner, Art Unit 3644

JWS